CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO.

FOR
VALLEY SPRINGS PUBLIC UTILITY DISTRICT
WASTEWATER TREATMENT PLANT
CALAVERAS COUNTY

This Monitoring and Reporting Program (MRP) presents requirements for monitoring of wastewater influent, effluent, treatment ponds, storage reservoir, spray disposal areas, groundwater, sludge, and water supply. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. Specific sample station locations shall be approved by Regional Board staff prior to implementation of sampling activities.

All wastewater samples should be representative of the volume and nature of the discharge. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. Field testing instruments (such as those used to test pH and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. Instruments are serviced and/or calibrated per manufacturer's recommendations; and
3. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

INFLUENT MONITORING

Influent samples shall be collected at the same frequency and at approximately the same time as effluent samples and should be representative of the influent at the headworks prior to treatment. Influent monitoring shall include, at a minimum the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow	gpd	Continuous	Daily	Monthly
BOD[1]	mg/l	Grab	Monthly	Monthly

[1] 5-day biochemical oxygen demand.

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted to the storage reservoir. At a minimum, effluent monitoring shall consist of the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
BOD[1]	mg/L	Grab	Weekly	Monthly
pH	Standard Units	Grab	Weekly	Monthly

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Total Coliform Organisms[2,5]	MPN[3]/100 ml	Grab	Weekly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly
Standard Minerals [4]	mg/L	Grab	Annually	Annually

[1] 5-day Biochemical Oxygen Demand
[2] Effluent samples collected for Total Coliform Organisms analysis shall be collected at a point after disinfection and prior to discharge to the spray disposal fields.
[3] Most Probable Number
[4] Standard Minerals shall include, at a minimum, the following elements/compounds: boron, calcium, chloride, iron, magnesium, manganese, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.
[5] To be analyzed starting in April 2006.

WASTEWATER TREATMENT PONDS AND STORAGE RESERVOIR MONITORING

Samples shall be collected from an established sampling station in an area that will provide a sample representative of the wastewater in each pond. Freeboard shall be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 feet. Monitoring of all three treatment ponds and the storage reservoir shall include, at a minimum, the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Dissolved Oxygen[1]	mg/L	Grab	Weekly	Monthly
pH	Standard units	Grab	Weekly	Monthly
Freeboard	0.1 feet	Measurement	Weekly	Monthly
Odors	--	Observation	Weekly	Monthly
Levee condition[2]	--	Observation	Weekly	Monthly

[1] Samples shall be collected at a depth of one foot, opposite the inlet. Samples shall be collected between 0700 and 0900 hours.
[2] Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levees. If surfacing water is found, then a sample shall be collected and tested for total dissolved solids, and total coliform organisms.

SPRAY DISPOSAL AREA MONITORING

Monitoring of the spray disposal areas (including the tailwater control system) shall be conducted **daily** when the disposal areas are used, and the results shall be included in the monthly monitoring report. Evidence of erosion, field saturation, irrigation runoff, or the presence of nuisance conditions shall be noted in the report. Effluent monitoring results shall be used in calculations to ascertain loading rates at the spray disposal areas. Monitoring of the spray disposal areas shall include the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency

Flows to sprayfields	Gallons	Continuous	Daily	Monthly
Rainfall[3]	Inches	Observation	Daily	Monthly
Acreage Applied [1]	Acres	Calculated	Daily	Monthly
Water Application Rate [2]	gal/acre/day	Calculated	Daily	Monthly
Total Nitrogen Loading Rate [2]	lbs/ac/month	Calculated	Monthly	Monthly
Total Dissolved Solids Loading Rate [2]	lbs/ac/month	Calculated	Monthly	Monthly

[1] Specific disposal fields shall be identified.
[2] Calculated average for each disposal field area.
[3] Rainfall data to be collected form the weather station that is nearest to the disposal fields.

In addition, the Discharger shall provide on a monthly basis, the volume of tailwater that was returned to the WWTP, when stormwater runoff is collected in the tailwater control system, and when storm water runoff from the sprayfields is released off site through the tailwater control system.

At least **once per week** when the spray disposal areas are being used, the entire sprayfield area shall be inspected to identify any equipment malfunction or other circumstances that might allow irrigation runoff to leave the irrigation area and/or create ponding conditions that violate the Waste Discharge Requirements. A daily log of each inspection shall be kept at the facility and be submitted with the monthly monitoring reports. Photocopies of entries into an operator's field log are acceptable. If the spray disposal areas are not used, then the monthly monitoring reports shall state so.

GROUNDWATER MONITORING

This sampling program is effective with the 4th quarter 2006 and shall pertain to all monitoring wells installed in response to these WDRs. Prior to sampling, groundwater elevations shall be measured and the wells shall be purged at least three well volumes until pH and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Water table elevations shall be calculated and used to determine groundwater gradient and direction of flow. Samples shall be collected using approved EPA methods. Groundwater monitoring shall include, at a minimum, the following:

Constituent	Units	Type of Sample	Sampling and Reporting Frequency[4]
Groundwater Elevation[1]	0.01 Feet	Measurement	Quarterly
Depth to Groundwater	0.01 Feet	Calculated	Quarterly
Gradient	Feet/Feet	Calculated	Quarterly
Gradient Direction	Degrees	Calculated	Quarterly
Total Coliform Organisms[2]	MPN/100ml	Grab	Quarterly
pH	S.U.	Grab	Quarterly
Total Dissolved Solids	mg/l	Grab	Quarterly
Nitrates as Nitrogen	mg/l	Grab	Quarterly
Total Kjeldahl nitrogen	mg/l	Grab	Quarterly
Total Trihalomethanes[5,6]	µg/L	Grab	Quarterly
Standard Minerals[3]	mg/l	Grab	Annually

[1] Groundwater elevation shall be based on depth-to-water using a surveyed measuring point elevation on the well and a surveyed reference elevation.
[2] Using a minimum of 15 tubes or three dilutions

3 Standard Minerals shall include, at a minimum, the following elements and compounds: boron, calcium, chloride, iron, magnesium, manganese, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.
4 Beginning 4th Quarter 2006
5 EPA Method 8020 or equivalent
6 Samples for Trihalomethanes shall only be collected from the spray disposal monitoring wells.

BIOSOLIDS MONITORING

The Discharger shall keep records regarding the quantity of biosolids generated by the treatment processes; any sampling and analytical data; the quantity of biosolids stored on site; and the quantity removed for disposal. The records shall also indicate that steps taken to reduce odor and other nuisance conditions. Records shall be stored onsite and available for review during inspections.

If biosolids are transported off-site for disposal, then the Discharger shall submit records identifying the hauling company, the amount of biosolids transported, the date removed from the facility, the location of disposal, and copies of all analytical data required by the entity accepting the waste. If biosolids are disposed of onsite, then the Discharger shall submit the annual report information as contained in the Statewide General Order for the Discharge of Biosolids (Water Quality Order No. 2000-10-DWQ) (or any subsequent document which replaces Order No. 2000-10-DWQ).

All records shall be submitted as part of the Annual Monitoring Report.

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the municipal water supply can be obtained. Water supply monitoring shall include at least the following for each water source used during the previous year. As an alternative to annual water supply monitoring, the Discharger may submit results of the most current DHS water supply monitoring data.

Constituents	Units	Sampling Frequency	Reporting Frequency
Total Dissolved Solids	mg/L	Annually	Annually
pH	pH units	Annually	Annually
Standard Minerals [1]	mg/L	Annually	Annually

[1] Standard Minerals shall include, at a minimum, the following elements/compounds: boron, calcium, chloride, iron, magnesium, manganese, nitrogen, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, reservoir, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring

done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a Registered Engineer or Geologist and signed by the registered professional.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Board by the **1st day of the second month** following the end of the reporting period (i.e. the January monthly report is due by 1 March). At a minimum, the reports shall include:

1. Results of the influent, effluent, treatment pond and storage reservoir, spray disposal area, and biosolids monitoring;
2. Copies of inspection logs;
3. A comparison of the monitoring data to the discharge specifications and an explanation of any violation of those requirements;
4. If requested by staff, copies of laboratory analytical report(s); and
5. A calibration log verifying calibration of all hand-held monitoring instruments and devices used to comply with the prescribed monitoring program.

B. Quarterly Report

Beginning with the fourth quarter 2006, the Discharger shall establish a quarterly sampling schedule for groundwater monitoring such that samples are obtained approximately every three months. Quarterly monitoring reports shall be submitted to the Board by the **1st day of the second month after the quarter** (i.e. the January-March quarter is due by May 1st) and may be combined with the monthly report. The Quarterly Report shall include the following:

1. Results of groundwater monitoring;

2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDR, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged;

3. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any;

4. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal tends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);

5. A comparison of the monitoring data to the groundwater limitations and an explanation of any violation of those requirements;

6. Summary data tables of historical and current water table elevations and analytical results;

7. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum; and

8. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Report

An Annual Report shall be prepared as the fourth quarter monitoring report. The Annual Report will include all monitoring data required in the monthly/quarterly schedule. The Annual Report shall be submitted to the Regional Board by **1 February** each year. In addition to the data normally presented, the Annual Report shall include the following:

1. The contents of the regular December monitoring report for the last sampling event of the year;

2. If requested by staff, tabular and graphical summaries of all data collected during the year;

3. An evaluation of the performance of the domestic wastewater treatment system the groundwater quality beneath the wastewater treatment facility;

4. Summary of information on the disposal of biosolids as described in the "Biosolids Monitoring" section;

5. A discussion of whether the Discharger anticipates removing biosolids in the coming year, and if so, the anticipated schedule for cleaning, drying, and disposal;

6. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements;

7. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program;

8. A copy of the certification for each certified wastewater treatment plant operator working at the facility and a statement about whether the Discharger is in compliance with Title 23, CCR, Division 3, Chapter 26.

9. The results from annual monitoring of the effluent, groundwater, and water supply;

10. The number of will-serve letters issued resulting in increased wastewater flows;

11. A forecast of influent flows, as described in Standard Provision No. E.4;
12. A statement of when the O&M Manual was last reviewed for adequacy, and a description of any changes made during the year;
13. Copies of equipment maintenance and calibration records (including influent flow meter), as described in Standard Provision No. C.4.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B.3.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: _____
THOMAS R.PINKOS, Executive Officer

_____
(Date)

JSK: 3/8/05